



Dkt. 01115

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:	Group Art Unit: 1723
HERVE LESCOUYER et al	Examiner: K. Menon
Serial No.: 09/856,460	MAIL STOP AF
Filed: August 7, 2001	
For: IMPROVED METHOD FOR FILTERING A METAL LIQUID ON A BED OF REFRACTORY PARTICULATE MATERIAL	

DECLARATION UNDER 37 CFR 1.132

Honorable Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

I, Pierre Le Brun, do hereby declare as follows:

I was educated at the Université Catholique de Louvain-la-Neuve and received a Ph.D. degree in Metallurgy from the Katholieke Universiteit Leuven, both in Belgium.

Since completing my education, I have been working for 10 years at the Pechiney Research Center in Voreppe, France, in the field of metallurgy and metal casting, in particular molten metal treatment and filtration.

I am familiar with patents by virtue of my being a named inventor on 5 basic patents, including one U.S. patent, No. 6,060,013, and by working on numerous patents with the Pechiney Patent Department in Lyon, France.

I am familiar with the above-identified patent application, and with the Office Actions mailed on October 23, 2002, March 28, 2003 and October 1, 2003.

I have reviewed U.S. Patent No. 4,690,763 to Rieger et al, which discloses a filter plate for filtering molten metal in the form of a porous body made of hollow spherical ceramic granules bonded together. The grains have a mean diameter of from 0.1 mm to 30 mm; the porosity of the plate is between 5 and 45% by volume.

I have reviewed the statement in the Office Action of October 1, 2003 that the void volume of the bed is actually 82% (col. 7, lines 30-49), of which 55% is available for filtration of molten aluminum, presumably calculated on the basis that 55%x82% is equal to 45%, as disclosed at col. 2, line 46. I believe that the Office Action presents an incorrect interpretation of the reference to arrive at this conclusion.

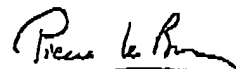
During the 1980's, when the Rieger et al patent was written, one of the main problems with filters for liquid metal was that the liquid metal would not flow evenly throughout the entire available space, i.e. some of the available porosity was not penetrated by the liquid metal. While this problem has since been solved, I believe that the cited paragraph in Rieger et al referred to this phenomenon, and that one of ordinary skill in the art would read Rieger et al as stating that measurements were made to evaluate the performance of the filter, and that a significant portion of the porosity (82%) is available for penetration by the liquid metal, as opposed to 55% available according to CH 622,230. Thus, 82% is not the overall porosity of the filter, but is only a relative number meaning that 82% of the available porosity is penetrated by the liquid metal during filtration, as opposed to 55% of the available porosity in the Swiss reference.

Consequently, Rieger et al does not state that the porosity of the filter is 82%, and it is not possible to determine the total available space using the 82% figure, which is only a relative number. The porosity of the filter of Rieger et al must thus be held to be 5 to 45%, as specifically disclosed at col. 2, line 46.

I further declare that all statements made by me herein are true and all statements made on information and belief are believed to be true, and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and may jeopardize the validity of the application or any patent issued thereon.

JANUARY 28<sup>th</sup>, 2004

Date



Pierre LE BRUN